

Claims

1. A method of producing coated fine particles in which core fine particles is coated with a coating layer, which comprises the steps of:

preparing a liquid (liquid A) containing a polar organic solvent in which core fine particles are dispersed and a coating layer component constituting the coating layer is dissolved;

preparing a liquid (liquid B) which is miscible with the liquid A and does not contain a polar organic solvent or contains a polar organic solvent in a ratio lower than that in the liquid A; and

letting the liquid A flow from at least one inlet of a device for producing coated fine particles equipped with an in-line mixing means having two or more inlets and one or more outlet(s) and letting the liquid B flow from at least one remaining inlet to mix the liquids thereby coating the core fine particles with a coating layer.

2. The production method according to claim 1, wherein the device for producing coated fine particles includes a pump, a flow path and the in-line mixing means.

3. The production method according to claim 1, wherein the device for producing coated fine particles includes a manual pump, a flow path and the in-line mixing means.

4. The production method according to any one of claims 1 to 3, wherein the coating layer component is one or more substance(s) selected from lipids, surfactants and polymers.

5. The production method according to any one of claims 1 to 4, wherein the coating layer is a lipid membrane.

6. The production method according to any one of claims 1 to 5, wherein the core fine particles are fine particles containing as a constituent component a drug, a lipid assembly, liposome, an emulsion fine particles, a polymer, a metal colloid or fine particles preparation.

7. The production method according to any one of claims 1 to 5, wherein the core fine particles are fine particles containing as a constituent component a complex obtained by combining two or more of a drug, a lipid assembly, liposome, an emulsion fine particles, a polymer, a metal colloid or fine particles preparation.

8. The production method according to any one of claims 1 to 5, wherein the core fine particles are fine particles containing as a constituent component a complex of a drug and liposome.

9. The production method according to any one of claims 1 to 8, wherein the polar organic solvent is one or more member(s) selected from alcohols, glycols and polyalkylene glycols.

10. The production method according to any one of claims 1 to 8, wherein the polar organic solvent is ethanol.

11. Coated fine particles which can be produced by the production method according to any one of claims 1 to 10.